

Name: _____

Date: _____

Period: _____

Slope Quiz20

What is the formula used to determine the slope? (1 point)

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

Find the slope given the following information. (16 points)

$$\begin{matrix} (-2, 1) & (6, 7) \\ x_1, y_1 & x_2, y_2 \end{matrix}$$

$$\frac{7-1}{6-(-2)} = \frac{6}{8} = \frac{3}{4}$$

$$m = \underline{\frac{3}{4}}$$

$$\begin{matrix} (-1, 4) & (3, -2) \\ x_1, y_1 & x_2, y_2 \end{matrix}$$

$$\frac{-2-4}{3-(-1)} = \frac{-6}{4} = -\frac{3}{2}$$

$$m = \underline{-\frac{3}{2}}$$

$$\begin{matrix} (-12, 5) & (4, 1) \\ x_1, y_1 & x_2, y_2 \end{matrix}$$

$$\frac{1-5}{4-(-12)} = \frac{-4}{16} = -\frac{1}{4}$$

$$m = \underline{-\frac{1}{4}}$$

x	y
1	5
2	10
3	15
4	20

$$\frac{5}{1}$$

$$m = \underline{5}$$

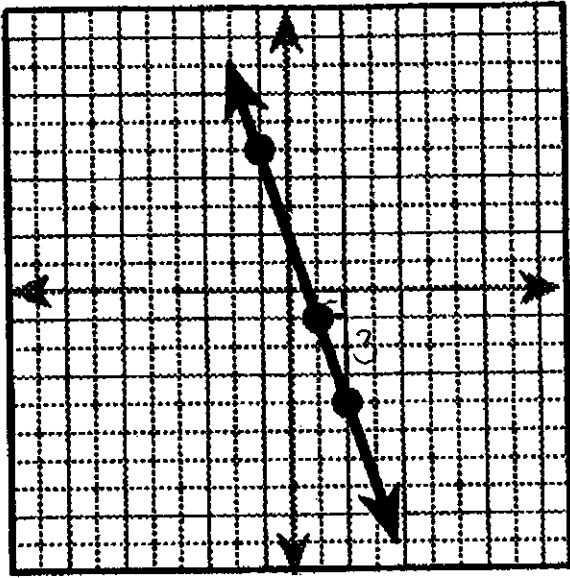
x	y
2	5
4	6
6	7
8	8

$$\frac{1}{2}$$

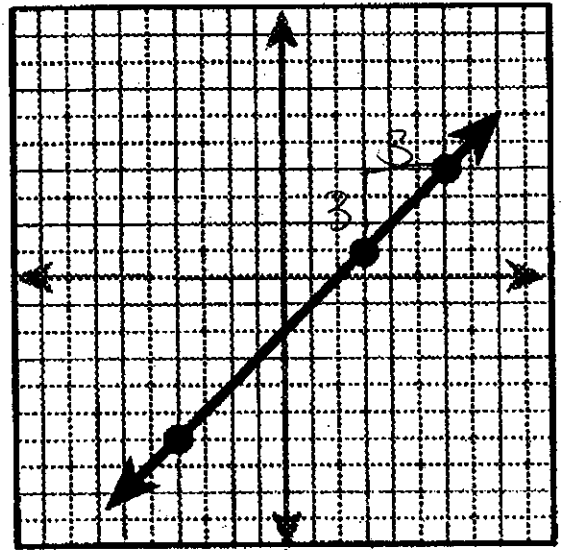
$$m = \underline{\frac{1}{2}}$$

x	y
1	2
4	4
7	6
11	8

$$m = \underline{\frac{2}{3}}$$



$$m = -3$$



$$m = 1$$

Describe what the rate of change/slope means in each situation. (2 points)

A climber is on a hike. After 2 hours he is at an altitude of 400 feet. After 6 hours, he is at an altitude of 700 feet. What is the average rate of change?

$$\frac{300}{4} = 75 \text{ ft/hour}$$

A scuba diver is 30 feet below the surface of the water 10 seconds after he entered the water and 100 feet below the surface after 40 seconds. What is the scuba divers rate of change?

$$\frac{70 \text{ ft}}{30 \text{ seconds}}$$

Tell me one thing that made you happy over spring break. (1 point)